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(54) APPARATUS AND METHOD FOR INPUTTING A HANGUL

 **Abstract**

Machine Translation Human Translation

1 The present invention relates to the apparatus for inputting hangeul and method, and it is the consonant corresponding to that or 2 step: and the very useful invention which indicates the single vowel and in which if necessary, in order to rapidly inputs. And input moreover, a diphthong the Hangul inputting the diphthong transformation key and diversifies the single vowel of the sentence in which a user wants it selects the consonant / vowel conversion and diphthong conversion the special key (*, #) of 2 is used the small Korean character keypad equipped in the small electronic instrument including the mobile phone etc. the consonant 2 maximums and one single vowel is juxtaposed in each numeric key (1,2,0) it is made including 3 step, the diphthong conversion repeatedly has to input several numeric keys about the single vowel and which minimizes to be troublesome according to 1 step: the selected numeric key as described above selecting the numeric key which can express the consonant of 2 maximums and one single vowel in order to indicate a consonant or a vowel.

 **Representative Drawing(s)**

Fig. 2

 **Keyword(s)**

The hangul input keyboard, diphthong conversion, consonant / vowel conversion, diphthong conversion rank table, consonant combination table.

 **Description**

‣ Brief explanation of the drawing

- 2 Fig. 1 shows the consonant at the general miniature hangul input keyboard and vowel arrangement.
- 3 Fig. 2 shows the consonant at the miniature hangul input keyboard and vowel arrangement.
- 4 Fig. 3 shows a part configuration of the apparatus for inputting hangeul.
- 5 Fig. 4 shows the diphthong conversion rank table applied to the apparatus for inputting hangeul and method.
- 6 Fig. 5 shows the consonant combination table applied to the apparatus for inputting hangeul and method.
- 7 Fig. 6 shows the arrival sequence inputting the arbitrary specific sentence according to the input method of the alphabet.

- 8 ※ The description of reference numerals of the main elements in drawings.
- 9 10: hangul input keyboard 11: controller.
- 10 12: memory unit 13: display unit.

‣ Details of the Invention**‣ Purpose of the Invention****The Technical Field to which the Invention Belongs and the Prior Art in that Filed**

- 11 The present invention relates to the apparatus for inputting hangeul and method, more particularly, to the apparatus for inputting hangeul and the method using the small Korean character keypad equipped in the small electronic device including the mobile phone etc., and for rapidly inputting the Hangul of the sentence in which a user wants.

- 12 Generally, in the mobile phone including the PCS phone etc, in order that the various additional service including short message service etc. is used, the small hangul input keyboard for the hangul input is equipped.

- 13 As shown in Fig. 1, the hangul input keyboard is together arranged in numeric keys (1,2,0) of 10 and special key of 2. And especially, the keyboard for the vowel input of Hangul corresponds to the script order of Hangul. It is arranged in the numeric key 1, in which the chun (·), generating the specific vowel which thus corresponds to the paper (—), and the phosphorus (]) vowel keyboard are arranged in the upper the numeric key 2, and the numeric key 3.

- 14 In the meantime, the keyboard for the consonant input of Hangul is juxtaposed in the numeric key 1, in which the paper, and the phosphorus are placed 2, and 3 the other numeric keys with respective 2 the sick. The consonant is displayed on the front the juxtaposed consonant of 2 once presses the target number key is indicated on one key. Thereafter in case it once more presses the same key within the designated time, it becomes the another consonant which is juxtaposed in after that with selective display.

- 15 That is, as shown in Fig. 1, the hangul input keyboard in which a consonant and vowel are arranged is used. When the arbitrary word, for example, 'feedback' tries to be inputted, firstly a user selectively successively inputs the numeric key 4 ('ㄱ'), numeric key 3 ('ㅓ'), numeric key 2 ('ㅏ'), numeric key 2 ('ㅓ'), numeric key 1 ('ㅣ'), numeric key 1 ('ㅓ') and the numeric key 2 ('ㅓ'). After that, the numeric key 2 ('ㅓ') is made a user. Thereafter the numeric key 8 ('ㅎ'), numeric key 8 ('ㅗ'), numeric key 2 ('ㅓ'), numeric key 1 ('ㅓ') and the numeric key 2 ('ㅓ') are successively selectively inputted.

('－'), numeric key 1 ('ㅣ'), numeric key 2 ('ㅓ'), numeric key 5 ('ㅗ') selectively is successively inputted and 'ri' made. Therefore, in conclusion, the numeric key is pressed with 13 burn and the word in which oneself wants 'feedback' are inputted.

- 16 Therefore, a user easily inputs by making use of the churn, which is a consonant and vowel of the Hangul, in oneself wants especially, the vowel of Hangul juxtaposed in the numeric key 1, 2, and 3 the paper, and the phosphorus.
- 17 But as described above, in case the vowel of Hangul selectively is inputted by making use of a churn, the paper the phosphorus, in order that for example, one diphthong like '??' is inputted, it does as described above, only selectively successively inputting the numeric key 3 ('－'), numeric key 2 ('ㅓ'), numeric key 2 ('ㅓ'), numeric key 1 ('ㅣ'), numeric key 1 ('ㅣ').
- 18 That is, there is a problem that in order that one vowel, especially, a diphthong is inputted, several numeric keys repeatedly have to be selected. Therefore, relatively the Korea input speed is limited.

Technical challenges of the Invention:

- 19 Therefore, it are an object of the present invention to provide the diphthong conversion, the apparatus for inputting hangeul and the method it selects the consonant / vowel conversion, and in that way for more rapidly inputting the Hangul of the sentence in which a user wants. The special key (*, #) of 2 is used the small Korean character I equipped in the small electronic instrument including the mobile phone etc. the consonant of 2 maximums and one single vowel is juxtaposed in each numeric key (1,2,0) to solve problems described in the above, it is created.

‣ Structure & Operation of the Invention

- 20 The numeric key: numeric key which the apparatus for inputting hangeul according to the present invention for achieving the above described object can express the consonant of 2 maximums and one single vowel are characterized that it is a thing done by a feature. And moreover, the input method of the Korean alphabet is n according to 1 step: the selected numeric key as described above selecting the numeric key which can express consonant of 2 maximums and one single vowel in order to indicate a consonant or a vowel including the con corresponding to that or 2 step: indicating the single vowel and 3 step in which if necessary, the diphthong co inputs the diphthong transformation key about the single vowel and diversifying the single vowel.
- 22 The preferred embodiment is circumstantially illustrated for below, and the apparatus for inputting hangeul an with reference to the attached drawing.
- 23 Firstly, Fig. 2 shows the hangul input keyboard in which the apparatus for inputting hangeul and method are a The consonant of 2 maximums and one single vowel is juxtaposed in numeric keys (1,2,0) of 10. And 'consol vowel conversion' changed in a vowel to a consonant a selection is 'diphthong conversion', converting the pre inputted single vowel into the set up in advance diphthong and the character corresponding to the numeric ke thereafter is inputted juxtaposed to a vowel in moreover, the special key (*, #) of 2 in a consonant in other wo
- 24 In the meantime, as described above, in the numeric key in which the consonant of 2 maximums and one singl is juxtaposed of 10 and the apparatus for inputting hangeul in which the diphthong conversion and the hangul keyboard (10) in which the special key of the respective 2 juxtaposed of the consonant / vowel conversion is : are equipped, the consonant, corresponding to that the controller (11): diphthong conversion, generating com

vowel the storage (12): storing necessary data in the consonant / vowel conversion and the display unit (13) c the Hangul letter combined with a production on screen is as shown in Fig. 3 included and organized accordir choice input of the special key and numeric key.

- 25 And in the storage (12), as shown in Fig. 4, the diphthong conversion rank table is managed with storage. In user inputs the special key (*) in which 'diphthong conversion' is juxtaposed to the diphthong conversion rank with 1 time, the previously inputted single vowel is converted into a diphthong. Along with this in case the spe (*) repeatedly is consecutively, sequentially, serially inputted, in order to be connected in the single vowel in w diphthong codes for measuring the transformed diphthong as described above with the another diphthong an changing are juxtaposed in the numeric key with 1 the sick it is managed according to the number of input ov least, 1 with storage.
- 26 Moreover, in the storage (12), as shown in Fig. 5, the consonant combination table is managed with storage. user tries to produce consonants which are not juxtaposed in the numeric key of 10 in the consonant combina with combination, consonant associative codes corresponding to the successively inputted numeric key of 2 e managed in the numeric key as as possible.
- 27 Therefore, in the controller (11), in case a user input the Hangul letter in which oneself wants, the numeric ke arranged in the hangul input keyboard (10) of 10 and special key of 2 selectively are inputted, the diphthong conversion rank table and the consonant combination table stored in the storage (12) are and confirm search Hangul letter corresponding to that is produced and a user assembles. The target character is displayed on s through the display unit (13).
- 28 For example, in case a user inputs the Hangul letter called 'feedback' this, the numeric key 1 which a user sel inputs is recognized as 'ㄱ' corresponding to that and a user indicates in the state (S10) which as shown in Fi up the action mode as the text input mode in the controller (11) in the display unit (13). The numeric key 7 wh thereafter is again inputted is recognized clearly as 'ㅏ' corresponding to that. 'globe' is represented a combin (S11) (S12).
- 29 And the diphthong conversion rank table of the storage (12) is and confirms searched according to the specia which a user selectively inputs, and the special key (*) input in which that is, the diphthong conversion is juxtap The first diphthong 'ㄱㅏ' stored by linkage is read out in the single vowel 'ㅏ'. 'globe' is and marks changed to 'ear' (S13).
- 30 Moreover, in the controller (11), the diphthong conversion rank table is and confirms searched again accordin special key (*) which a user selectively again inputs. The second diphthong 'ㄱㅓ' stored by linkage is read out i transformed diphthong 'ㅓ' as described above. 'ear' is and marks changed to 'it acts'. The third diphthong 'ㅓㅓ' by linkage is read out in the transformed diphthong 'ㅓㅓ' as described above according to the special key (*) w next, and a user selectively once again input. 'it acts' is and marks changed to 'desk' (S14) (S15).
- 31 In the meantime, as described above, it is combined with the diphthong conversion with 'desk' autogenous. S the numeric key 0 which a user selectively inputs is recognized as 'ㅎ'. 'desk ㅎ' is represented a combination numeric key 5 which thereafter a user inputs is recognized as the vowel 'ㅏ' which is not consonant 'ㅁ' and 'ㅌ' house' is represented a combination (S17). The order table changing according to the special key (*) which th a user selectively inputs, and the special key (*) input in which that is, the diphthong conversion is juxtaposed diphthong of the storage (12) is and confirms searched. The first diphthong 'ㅓㅓ' stored by linkage is read out i single vowel 'ㅓㅓ'. 'house' is and marks changed to 'time' (S18).
- 32 Moreover, in the controller (11), the diphthong conversion rank table is and confirms searched again accordin

special key (*) which a user selectively again inputs. The second diphthong 'ㅏ' stored by linkage is read out in transformed diphthong 'ㅏ' as described above and 'time' is and marks changed to 'anger' (S19). The numeric which finally is inputted is recognized as 'ㄴ'. 'feedback' is represented a combination.

- 33 Therefore, a user selectively inputs the numeric key of 10 and special key of 2. A user inputs the Hangul letter especially, a diphthong is the Hangul letter in which oneself wants combined. In the key input frequency which selects at this time, so that a user input a character called 'feedback' this, the total 10 time (S11~S20) is. The case of inputting a character called this as described above, by using a churn, the paper, and the phosphorus 'feedback', it reduces 3 times in comparision with (= total 13 time).
- 34 For your reference, as shown in Fig. 1, the hangul input keyboard using a churn, the paper, and the phosphorus used. In order that a character called 'computer' is inputted, it is necessary to have the key input of the total 1 But in case the hangul input keyboard is used, relatively it is necessary to have as to an enemy, than that only input of the total 10 time.
- 35 The or more, and the above-described preferred embodiment of the present invention are disclosed for the of example. An etc. of the part will be various another preferred embodiment possible in the technical mapping of present invention and the technical scope disclosed in the patent claim which hereinafter is attached the pers in the art in the world.

▶ Effects of the Invention

- 36 As described above, in order to rapidly inputs. And input moreover, a diphthong the Hangul of the sentence is selects the consonant / vowel conversion, and in that way a user wants. And diphthong conversion the specific #) of 2 is used the apparatus for inputting hangeul and the method for being made with a configuration juxtaposed consonant of 2 maximums and one single vowel the small Korean character keypad equipped in the small electronic instrument including the mobile phone etc. in each numeric key (1,2,0), it is the very useful invention which reduces has to input several numeric keies minimizing to be troublesome.

Scope of Claims

Claim[1] :

- 37 The apparatus for inputting hangeul wherein it is comprised of the consonant, corresponding to that according to numeric key: diphthong transformation key: vowel included in the numeric key and the consonant / vowel transformation key: numeric key which controls in order to assemble the letter to a consonant or it expresses a diphthong which is not double consonant, and the choice input of the consonant / vowel transformation key and diphthong transformation key diversifies the vowel inputted to the numeric key to a diphthong can express the consonant of 2 maximums and one single vowel the control means, generating compounds a vowel a plurality of vowels and a plurality of complex consonent table types changing according to the diphthong transformation key including the storage means stored.

Claim[2] :

- 42 The apparatus for inputting hangeul of claim 1, wherein in the numeric key, a consonant and one vowel of 2 maximums can be expressed; and in order, a consonant are indicated according to the input collection of the

Claim[3] :

- 44 The apparatus for inputting hangeul of claim 1, wherein the numeric key which expresses a vowel if the vowel inputting in the state where a consonant is indicated is not a vowel included to the numeric key in an input in the numeric key expressing a consonant is inputted with 1 time; and a vowel is indicated.

Claim[4] :

- 46 The apparatus for inputting hangeul of claim 1, wherein the consonant expressed as the numeric key and the vowel side ?? key are inputted in a production and a consonant is indicated; and the consonant expressed as the numeric key and the vowel side ?? key is inputted thereafter in order to indicate a vowel and the numeric key is inputted and it indicates the vowel.

Claim[5] :

- 48 The input method of the Korean alphabet wherein it is made according to 1 step: the selected numeric key as described above selecting the numeric key which can express the consonant of 2 maximums and one single vowel in order to indicate a consonant or a vowel including the consonant corresponding to that or 2 step: indicating the vowel and 3 step in which if necessary, the diphthong conversion inputs the diphthong transformation key abc to diversify the single vowel and diversifying the single vowel.

Claim[6] :

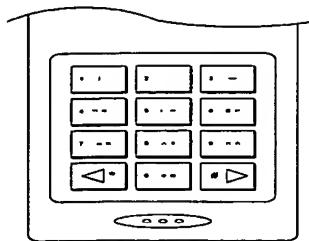
- 51 The input method of the Korean alphabet of claim 5, wherein the special key in which the diphthong conversion is juxtaposed is inputted; it confirms the previously inputted single vowel; and it is the low rank 1 step: and the special key in which the diphthong conversion is juxtaposed with typematic; and it assembles the single vowel with the previously inputted single vowel including the low rank 2 step which 3 step replaces.

Claim[7] :

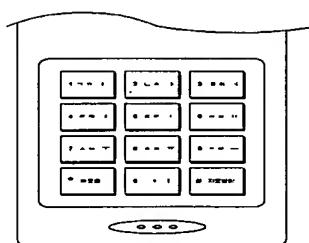
- 55 The input method of the Korean alphabet of claim 5, wherein 3 step becomes consecutively, sequentially, serially, special key in which the diphthong conversion is juxtaposed with typematic; and it assembles the single vowel with arbitrary one diphthong corresponding to the repetition time with conversion.

Claim[8] :

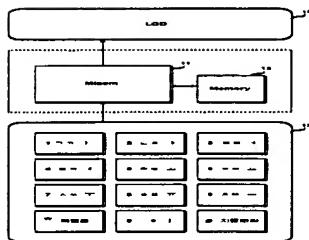
- 57 The input method of the Korean alphabet wherein 3 step: and the consonant / vowel transformation key which the consonant / vowel transformation key in order to indicate 2-step: vowel which indicates the consonant corresponding to that and is included in the inputted numeric key as described above are inputted according to 1 step: the inputted numeric key as described above inputting the numeric key which can express the consonant of 2 maximums and one single vowel in order to indicate a consonant or a vowel; and it is made including 4 step: the selected numeric key as described above and indicates a vowel.

 DRAWINGS

● Fig. 1



● Fig. 2



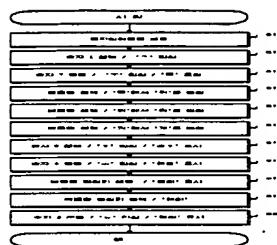
● Fig. 3

KPION 0000000000000000				
空空空	空空空	空空空	空空空	空空空
1	1			
1	1			
1	1			
1	1			
△	4	4	4	
△	4	4	4	
-	4			

● Fig. 4

00 20 000									
1	2	3	4	5	6	7	8	9	*
1	*	*	*	*	*	*	*	*	*
2	*	*	*	*	*	*	*	*	*
3	*	*	*	*	*	*	*	*	*
4	*	*	*	*	*	*	*	*	*
5	*	*	*	*	*	*	*	*	*
6	*	*	*	*	*	*	*	*	*
7	*	*	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*	*	*
9	*	*	*	*	*	*	*	*	*

• Fig. 5



● Fig. 6